

FLUID DELIVERY FOR SCANNING PROBE MICROSCOPY

ABSTRACT OF THE DISCLOSURE

The following invention pertains to the introduction of a gas (or fluid) around a SPM probe or nanotool™ to control chemical activity e.g. oxygen to promote oxidation, argon to inhibit oxidation or clean dry air (CDA) to inhibit moisture to control static charging due to the action of the probe or nanotools and to provide vacuum at and around the tip and substrate area. The invention can also produce electrical current for use with active electronic devices on, in or near the body of the device. In addition by use of a fluid like water, certain oils, and other liquids in conjunction with specific tip structure either electric discharge machining can be used at the tip area on the tip itself (in conjunction with a form structure on the work piece) or on a work piece beneath the tip to shape, polish and remove material at very small scales (10 microns to 1nm or less).

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